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PATENT & TRADEMARK OFFICE

FIG. 1

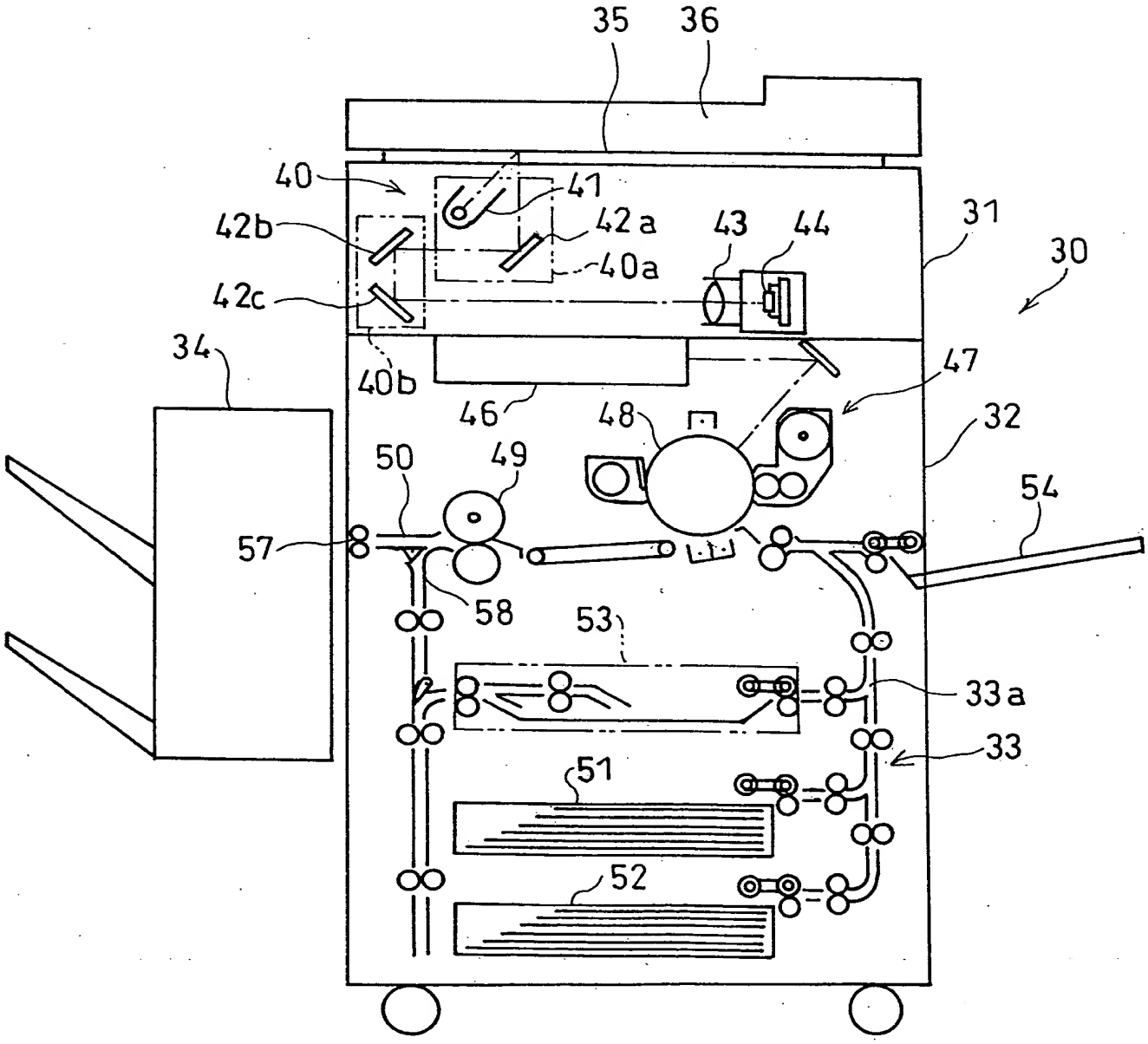
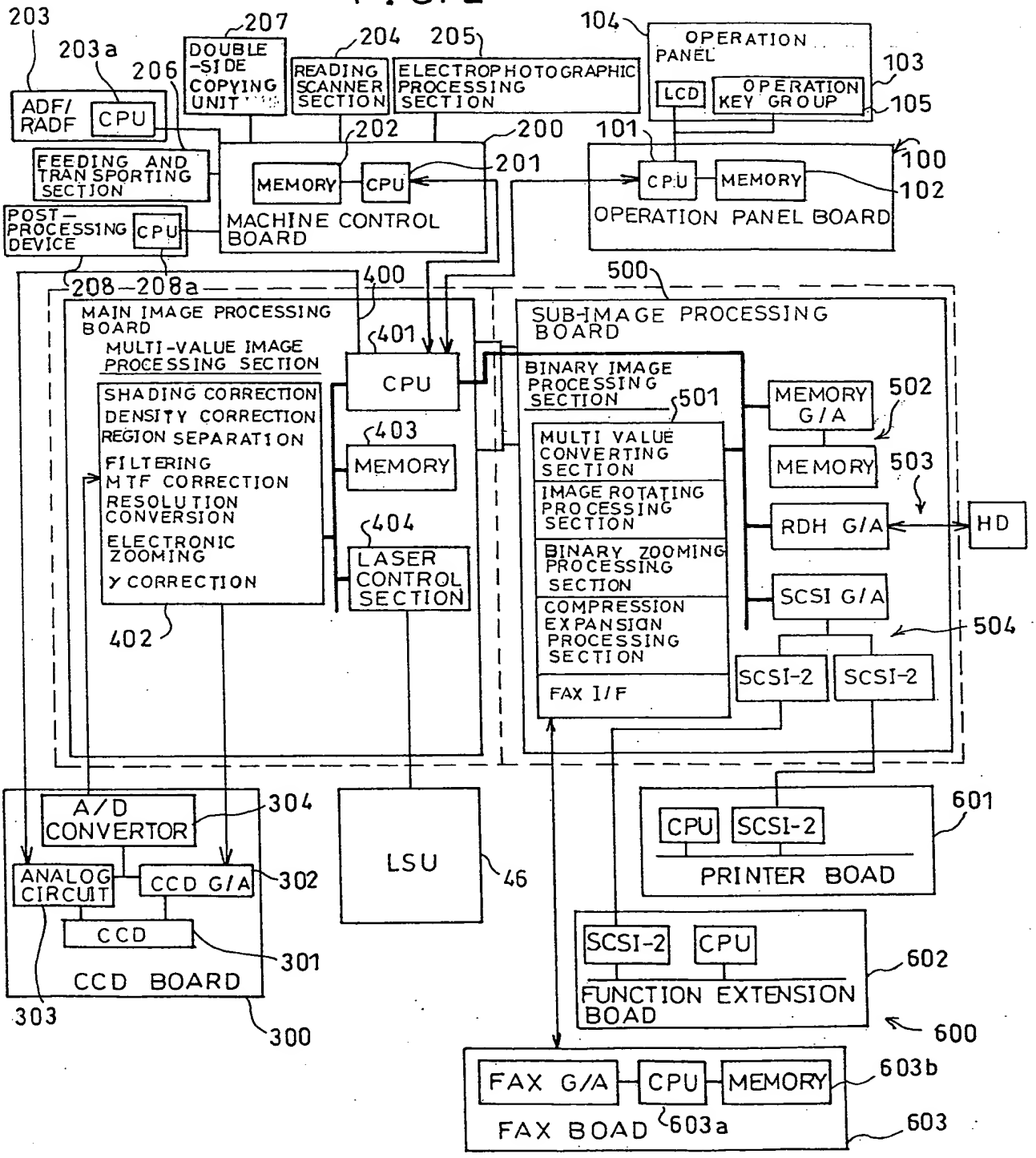


FIG. 2


203
203a
206
207
DOUBLE -SIDE COPYING UNIT
204
205
READING SCANNER SECTION
ELECTROPHOTOGRAPHIC PROCESSING SECTION
104
OPERATION PANEL
LCD
OPERATION KEY GROUP
103
105
ADF/ RADF
CPU
FEEDING AND TRANSPORTING SECTION
202
200
201
MEMORY
CPU
MACHINE CONTROL BOARD
101
CPU
MEMORY
OPERATION PANEL BOARD
100
102
POST-PROCESSING DEVICE
CPU
208
208a
400
500
MAIN IMAGE PROCESSING BOARD
MULTI-VALUE IMAGE PROCESSING SECTION
401
CPU
SHADING CORRECTION
DENSITY CORRECTION
REGION SEPARATION
FILTERING
MTF CORRECTION
RESOLUTION CONVERSION
ELECTRONIC ZOOMING
γ CORRECTION
403
MEMORY
404
LASER CONTROL SECTION
402
SUB-IMAGE PROCESSING BOARD
BINARY IMAGE PROCESSING SECTION
501
MULTI VALUE CONVERTING SECTION
IMAGE ROTATING PROCESSING SECTION
BINARY ZOOMING PROCESSING SECTION
COMPRESSION EXPANSION PROCESSING SECTION
FAX I/F
MEMORY G/A
502
MEMORY
503
RDH G/A
HD
SCSI G/A
504
SCSI-2
SCSI-2
A/D CONVERTOR
304
ANALOG CIRCUIT
CCD G/A
302
CCD
301
CCD BOARD
303
300
LSU
46
CPU
SCSI-2
PRINTER BOAD
601
SCSI-2
CPU
FUNCTION EXTENSION BOAD
602
600
FAX G/A
CPU
MEMORY
603b
FAX BOAD
603a
603

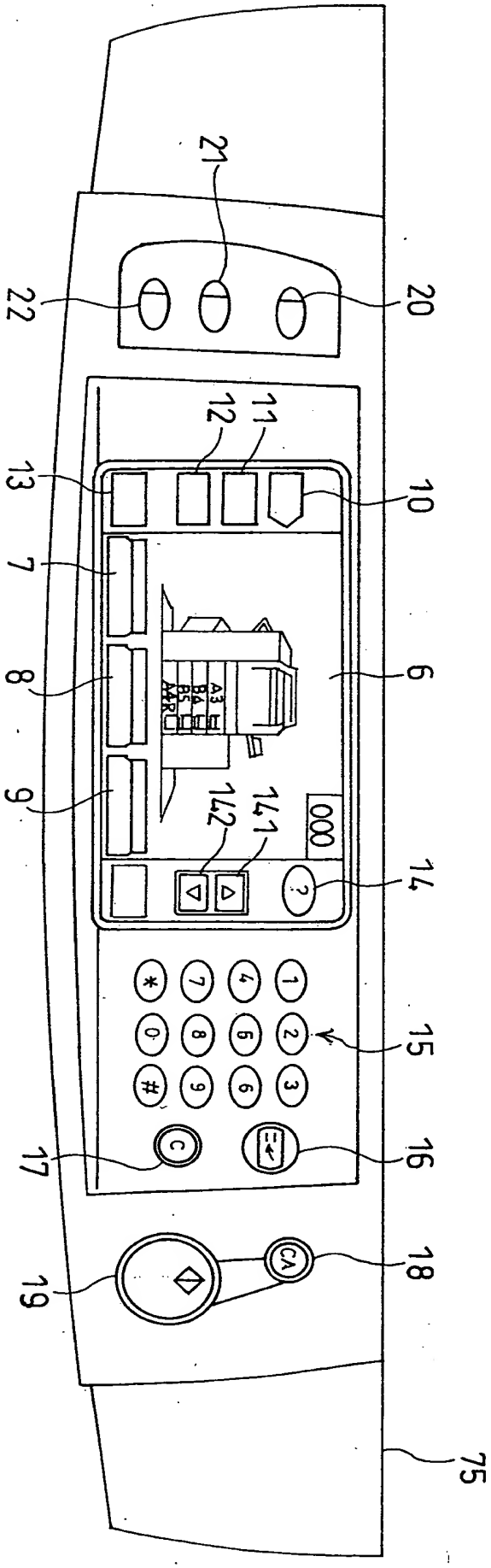
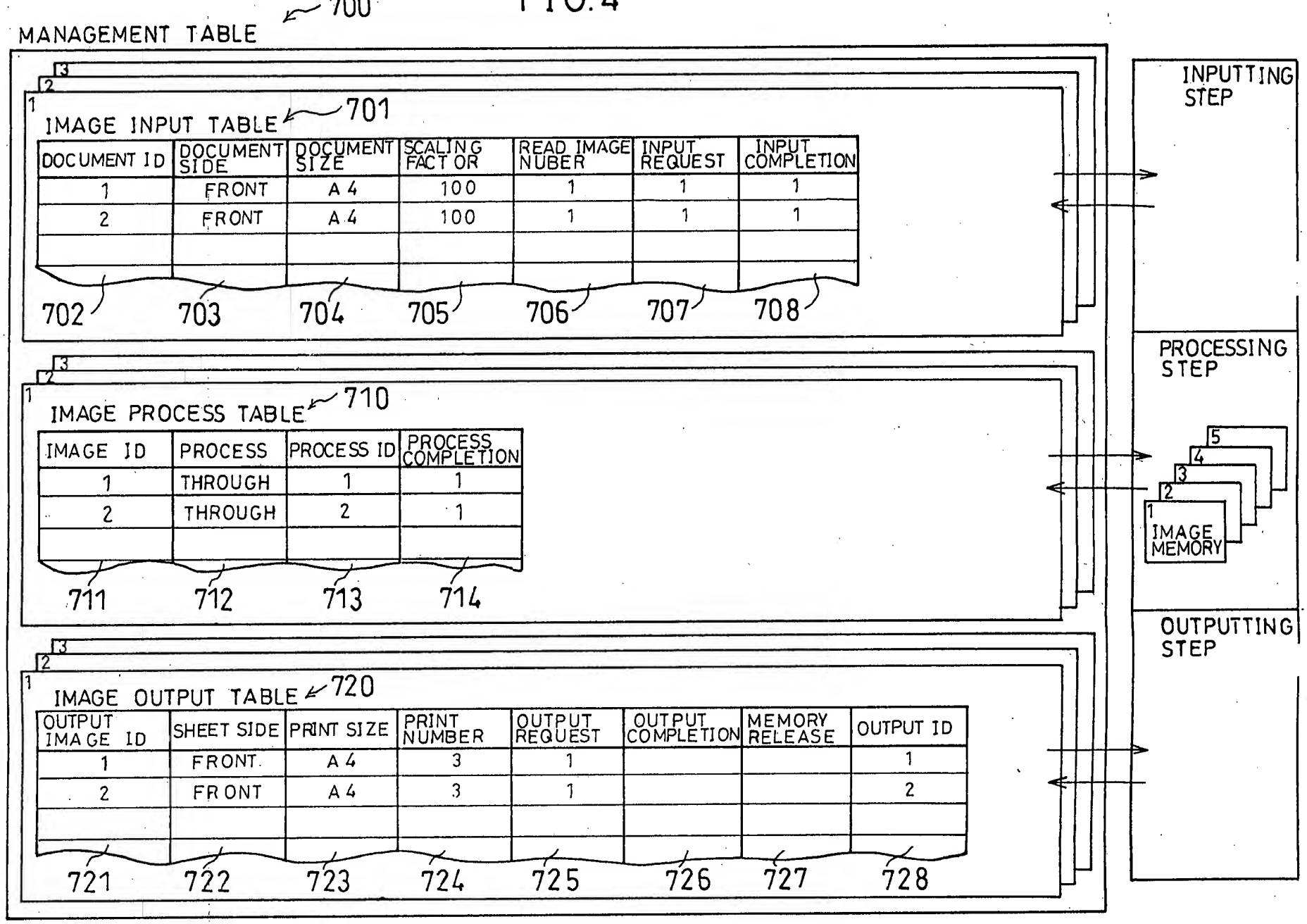


FIG. 3

Replacement Sheet

FIG. 4



Replacement Sheet

IMAGE INPUT TABLE ←701

FIG. 5 (a)

DOCUMENT ID	DOCUMENT SIDE	DOCUMENT SIZE	SCALING FACTOR	READ IMAGE NUMBER	INPUT REQUEST	INPUT COMPLETION
1	FRONT	A 4	100	1	0	0

702 703 704 705 706 707 708

IMAGE INPUT TABLE ←701

FIG. 5 (b)

DOCUMENT ID	DOCUMENT SIDE	DOCUMENT SIZE	SCALING FACTOR	READ IMAGE NUMBER	INPUT REQUEST	INPUT COMPLETION
1	FRONT	A 4	100	1	1	1
2	FRONT	A 4	100	1	1	0
3	FRONT	A 4	100	1	1	0

IMAGE INPUT TABLE ←701

FIG. 5 (c)

DOCUMENT ID	DOCUMENT SIDE	DOCUMENT SIZE	SCALING FACTOR	READ IMAGE NUMBER	INPUT REQUEST	INPUT COMPLETION
1	FRONT	A 4	100	1	1	1
2	FRONT	A 4	100	1	1	1
3	FRONT	A 4	100	1	1	1

Replacement Sheet

FIG.6 (a)

710

IMAGE PROCESS TABLE

IMAGE ID	PROCESS	PROCESS ID	PROCESS COMPLETION
1	THROUGH	1	0
2	THROUGH		0
3	THROUGH		0

711 712 713 714

FIG.6 (b)

710

IMAGE PROCESS TABLE

IMAGE ID	PROCESS	PROCESS ID	PROCESS COMPLETION
1	THROUGH	1	1
2	THROUGH	2	1
3	THROUGH	3	1

Replacement Sheet

FIG. 7 (a)

IMAGE OUTPUT TABLE 720

OUTPUT IMAGE ID	SHEET SIDE	PRINT SIZE	PRINT NUMBER	OUTPUT REQUEST	OUTPUT COMPLETION	MEMORY RELEASE	OUTPUT ID
1	FRONT	A 4	1	0	0		1
2	FRONT	A 4	1	0	0		2
3	FRONT	A 4	1	0	0		3

721 722 723 724 725 726 727 728

FIG. 7 (b)

IMAGE OUTPUT TABLE 720

OUTPUT IMAGE ID	SHEET SIDE	PRINT SIZE	PRINT NUMBER	OUTPUT REQUEST	OUTPUT COMPLETION	MEMORY RELEASE	OUTPUT ID
1	FRONT	A 4	1	1	1	1	1
2	FRONT	A 4	1	1	0		2
3	FRONT	A 4	1	1	0		3

FIG. 7 (c)

IMAGE OUTPUT TABLE 720

OUTPUT IMAGE ID	SHEET SIDE	PRINT SIZE	PRINT NUMBER	OUTPUT REQUEST	OUTPUT COMPLETION	MEMORY RELEASE	OUTPUT ID
1	FRONT	A 4	1	1	1	1	1
2	FRONT	A 4	1	1	1	1	2
3	FRONT	A 4	1	1	1	1	3

Replacement Sheet

IMAGE INPUT TABLE ← 701

FIG. 8 (a)

DOCUMENT ID	DOCUMENT SIDE	DOCUMENT SIZE	SCALING FACTOR	READ IMAGE NUMBER	INPUT REQUEST	INPUT COMPLETION
1	FRONT	A 4	100	1	0	0

702 703 704 705 706 707 708

IMAGE INPUT TABLE ← 701

FIG. 8 (b)

DOCUMENT ID	DOCUMENT SIDE	DOCUMENT SIZE	SCALING FACTOR	READ IMAGE NUMBER	INPUT REQUEST	INPUT COMPLETION
1	FRONT	A 4	100	1	1	1
2	FRONT	A 4	100	1	1	0
3	FRONT	A 4	100	1	1	0

IMAGE INPUT TABLE ← 701

FIG. 8 (c)

DOCUMENT ID	DOCUMENT SIDE	DOCUMENT SIZE	SCALING FACTOR	READ IMAGE NUMBER	INPUT REQUEST	INPUT COMPLETION
1	FRONT	A 4	100	1	1	1
2	FRONT	A 4	100	1	1	1
3	FRONT	A 4	100	1	1	1

Replacement Sheet

FIG. 9 (a)

710

IMAGE PROCESS TABLE

IMAGE ID	PROCESS	PROCESS ID	PROCESS COMPLETION
1	COMPOSITION WITH 2	4	0
2	COMPOSITION WITH 1	4	0
3	THROUGH		0

711 712 713 714

FIG. 9 (b)

710

IMAGE PROCESS TABLE

IMAGE ID	PROCESS	PROCESS ID	PROCESS COMPLETION
1	COMPOSITION WITH 2	4	1
2	COMPOSITION WITH 1	4	1
3	THROUGH	3	1

Replacement Sheet

FIG. 10 (a)

IMAGE OUTPUT TABLE 720

OUTPUT IMAGE ID	SHEET SIDE	PRINT SIZE	PRINT NUMBER	OUTPUT REQUEST	OUTPUT COMPLETION	MEMORY RELEASE	OUTPUT ID
1	FRONT	A 4	1	0	0		4
2	FRONT	A 4	1	0	0		3

721 722 723 724 725 726 727 728

FIG. 10 (b)

IMAGE OUTPUT TABLE 720

OUTPUT IMAGE ID	SHEET SIDE	PRINT SIZE	PRINT NUMBER	OUTPUT REQUEST	OUTPUT COMPLETION	MEMORY RELEASE	OUTPUT ID
1	FRONT	A 4	1	1	1	1	4
2	FRONT	A 4	1	1	0		3

FIG. 10 (c)

IMAGE OUTPUT TABLE 720

OUTPUT IMAGE ID	SHEET SIDE	PRINT SIZE	PRINT NUMBER	OUTPUT REQUEST	OUTPUT COMPLETION	MEMORY RELEASE	OUTPUT ID
1	FRONT	A 4	1	1	1	1	4
2	FRONT	A 4	1	1	1	1	3

Replacement Sheet

IMAGE INPUT TABLE 701

FIG.11 (a)

DOCUMENT ID	DOCUMENT SIDE	DOCUMENT SIZE	SCALING FACTOR	READ IMAGE NUMBER	INPUT REQUEST	INPUT COMPLETION
1	FRONT	A 4	100	1	0	0

702 703 704 705 706 707 708

IMAGE INPUT TABLE 701

FIG.11 (b)

DOCUMENT ID	DOCUMENT SIDE	DOCUMENT SIZE	SCALING FACTOR	READ IMAGE NUMBER	INPUT REQUEST	INPUT COMPLETION
1	FRONT	A 4	100	1	1	1
2	FRONT	A 4	100	1	1	0
3	FRONT	A 4	100	1	1	0

IMAGE INPUT TABLE 701

FIG.11 (c)

DOCUMENT ID	DOCUMENT SIDE	DOCUMENT SIZE	SCALING FACTOR	READ IMAGE NUMBER	INPUT REQUEST	INPUT COMPLETION
1	FRONT	A 4	100	1	1	1
2	FRONT	A 4	100	1	1	1
3	FRONT	A 4	100	1	1	1

Replacement Sheet

FIG. 12 (a)

710

IMAGE PROCESS TABLE

IMAGE ID	PROCESS	PROCESS ID	PROCESS COMPLETION
1	BINARY-CODING	4	0
2	BINARY-CODING		0
3	BINARY-CODING		0

711 712 713 714

FIG. 12 (b)

710

IMAGE PROCESS TABLE

IMAGE ID	PROCESS	PROCESS ID	PROCESS COMPLETION
1	BINARY-CODING	4	1
2	BINARY-CODING	5	1
3	BINARY-CODING	6	1

Replacement Sheet

FIG. 13 (a)

IMAGE OUTPUT TABLE 720

OUTPUT IMAGE ID	SHEET SIDE	PRINT SIZE	PRINT NUMBER	OUTPUT REQUEST	OUTPUT COMPLETION	MEMORY RELEASE	OUTPUT ID
1	FRONT	A 4		0	0		6
2	FRONT	A 4		0	0		5
3	FRONT	A 4		0	0		4

721 722 723 724 725 726 727 728

FIG. 13 (b)

IMAGE OUTPUT TABLE 720

OUTPUT IMAGE ID	SHEET SIDE	PRINT SIZE	PRINT NUMBER	OUTPUT REQUEST	OUTPUT COMPLETION	MEMORY RELEASE	OUTPUT ID
1	FRONT	A 4		1	1	1	6
2	FRONT	A 4		1	0		5
3	FRONT	A 4		1	0		4

FIG. 13 (c)

IMAGE OUTPUT TABLE 720

OUTPUT IMAGE ID	SHEET SIDE	PRINT SIZE	PRINT NUMBER	OUTPUT REQUEST	OUTPUT COMPLETION	MEMORY RELEASE	OUTPUT ID
1	FRONT	A 4		1	1	1	6
2	FRONT	A 4		1	1	1	5
3	FRONT	A 4		1	1	1	4